

State of Rhode Island and Providence Plantations.

FIRST ANNUAL REPORT

OF THE

BOARD OF MANAGERS

OF THE

Rhode Island State Agricultural School and Experiment Station,

MADE TO THE

GENERAL ASSEMBLY,

AT ITS

JANUARY SESSION, 1889.

PROVIDENCE:

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MEMBERS OF THE BOARD OF MANAGERS

OF THE

R. I. State Agricultural School and Experiment Station.

CHARLES O. FLAGG	Providence County.....	5 years.
CHARLES J. GREENE.....	Washington County.. ..	4 years.
MELVILLE BULL.....	Newport County.....	.3 years.
C. A. SHIPPEE, of W.....	Kent County.....	2 years.
C. H. COGGESHALL.....	Bristol County.....	1 year.

OFFICERS.

CHARLES O. FLAGG.....	Abbott Run, R. I....	Pres. and Director, <i>pro. tem.</i>
MELVILLE BULL.....	Newport, R. I	Secretary and Treasurer.

REPORT.

*To the Honorable the General Assembly of the State of Rhode Island,
at its January Session, 1889.*

In making this, the first annual report of the Board of Managers of the Rhode Island State Agricultural School, we trust it may not be inappropriate to very briefly review the influences which have brought about the passage of the Act of the General Assembly of this State, March 23d, 1888.

GOVERNMENT AID TO EDUCATIONAL INSTITUTIONS.

The idea of the higher education came to American soil with the Pilgrim Fathers, for hardly had their feet pressed Plymouth Rock when out of their poverty a year's rate of the Colony was levied, that the germ of a college should be planted in the new world. The solicitous care of the colony is ever manifest through the vicissitudes of those early days, and the pages of legislative record up to the memorable days of Independence bear evidence by more than a hundred different statutes of its nurture and guidance.

What is true of Harvard is essentially true of Yale, for the General Court of Connecticut had carefully considered the founding of such an institution long before Elihu Yale gave the final impulse which resulted in the establishment of the college which bears his name, some sixty years after the planting of Harvard.

The support of Yale college previous to the present century was largely due to the bounty of the legislature of Connecticut, says the first President Dwight in his history. The second college established

in the Colonies, the William and Mary of Virginia, was founded and supported through colonial days from the public treasury.

In our own State the fear that in some way educational institutions might interfere with that perfect individual religious freedom of thought and action which was the central motive that brought Roger Williams to settle Providence Plantations, seems to have caused division of opinion among the early settlers and time passed on till 1762, when James Manning was instrumental in an effort to procure a charter for the establishment of a University in Rhode Island, upon a broad basis of religious freedom.

This effort was doomed to defeat through religious jealousy; but two years later, in February, 1764, a charter was granted, but we find no record of educational work until 1766, when eight students were instructed in the town of Warren, and the first commencement dates from September 7, 1769. A proposition to build in Warren led to an agreement to locate in the county which might raise the most money in support of it, and February 7, 1770, it was voted to build the college edifice "in the town of Providence, and there to be continued forever."

GRADUATES, PROFESSIONAL MEN.

The minister, the lawyer, the doctor, the scholar and perhaps the merchant were graduates of these colleges. The sons of farmers, merchants and professional men entered their halls to go forth into the so-called professions. The idea that the son of the farmer intending to follow his father's vocation, the youth whose ambition was to become a builder, a blacksmith, a wheelwright or cabinet maker, required any other training than a smattering of the "three R.'s" and a thorough seven years' apprenticeship in the manual labor of the field or workshop had not been advanced by even the most liberal educationalists on this or the other side of the water.

WASHINGTON ADVOCATES AGRICULTURE.

It remained for the Father of his Country—and is it not an additional evidence of the far-seeing wisdom of this remarkable statesman and

farmer as well—to say in his annual message at the second session of the Fourth Congress, December 7, 1796, just a year after the organization of the first industrial and technical school in Europe, these words:

“It will not be doubted that with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity this truth becomes more apparent and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up supported by the public purse; and to what object can it be dedicated with greater propriety.

Among the means which have been employed to this end, none have been attended with greater success than the establishment of Boards composed of public characters charged with collecting and diffusing information, and enabled by premiums and small pecuniary aid to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvements by stimulating to enterprise and experiment and by drawing to a common centre the results everywhere of individual skill and observation and spreading them thence over the whole nation.

Experience accordingly has shown that they are very cheap instruments of immense national importance.”

NATIONAL BOARD OF AGRICULTURE.

The propositions for a National University and a National Board of Agriculture made about this time were referred to a committee, but never heard from after. A few agricultural societies had been already organized, the earliest in Philadelphia in 1785, the Massachusetts Society for promoting Agriculture, incorporated March 7, 1792, and one in New York and another in North Carolina with some others doubtless, before the present century began.

In 1817 a memorial was presented to Congress through the efforts of members of Berkshire, Mass., Agricultural Society in favor of a National Board of Agriculture. The favorable report of the committee to

which it was referred was ably seconded by some, but opposed by the large majority and defeated.

Finally a National Agricultural Department came into being in connection with the Patent Office about 1837. The Rhode Island Society for the Encouragement of Domestic Industry has been a stimulus to the industrial and agricultural business of the State since 1820. Local societies sprang up in all sections of the country.

INVENTION STIMULATES AGRICULTURE.

Many and varied influences were at work turning the attention of public men to the agriculture of the country. The possibilities of steam transportation by sea and land were just unfolding. Better postal facilities and more rapid transportation of mails gave an unbounded impetus to the publication of papers and literature of all kinds, stirred the minds and quickened the thoughts of the people.

The discovery of gold in California and the subsequent tide of emigration westward, the tireless spirit of invention which strove on every hand so successfully to substitute the machine for man and steam for muscle, reached the hitherto almost untouched field of agriculture. Improved plows, cultivators and harrows were made, mowing machines invented, horse rakes, tedders, reapers, self-binders, etc., etc., came in rapid succession with numberless improvements, till now the number and variety of farming tools is legion.

AGRICULTURAL SCHOOLS OF EUROPE.

Meanwhile the elaborate report on the agricultural schools of Europe by Mr. Chas. L. Fleischmann in the Patent Office report for 1847, and of Dr. Hitchcock, commissioned by the State of Massachusetts in 1851 to examine the agricultural schools of England, France and Germany and report thereon, together with spasmodic efforts in some sections of our own country looking toward the establishment of some agricultural school or college, formed a leaven which was slowly but steadily doing its work on public opinion. Again, observing minds had been a little startled and troubled to find from the census reports of the

United States, that our lands all through the country were generally deteriorating, the successive census statistics showing a less and less number of bushels of cereals per acre in nearly all the States.

LAND GRANT ACT INTRODUCED IN CONGRESS.

These facts led the Hon. Justin S. Morrill, then a National Representative from Vermont, on the 14th of December, 1857, to introduce a bill which provided for the issue of land scrip to the several States and Territories at the rate of 20,000 acres for each Senator or Representative in Congress for the purpose of founding a college in each, where such branches should be taught as are most intimately related to agriculture and the mechanic arts.

The Committee on Public Lands reported against this bill about four months later, but Mr. Morrill ably and eloquently defended his cause and perseveringly worked for his bill. Fourteen months after it was offered it had successfully passed both branches of Congress and awaited the signature of President Buchanan to become a law. It was returned with the President's veto and the veto was sustained, although the objections were satisfactorily answered by Mr. Morrill.

PASSAGE OF LAND GRANT ACT.

In December, 1861, he again offered a bill providing for 30,000 acres of the public lands for each Senator and Representative, and it was referred to the Committee on Public Lands.

It was not until May 29, 1862, that Mr. Potter of Wisconsin reported against it, and it was referred to the committee of the whole. On the 2d of May, before the House Committee had reported unfavorably, Hon. Benjamin Wade of Ohio offered a bill essentially the same, which was referred to the *Senate* Committee on Public Lands, Senator Harlan of Iowa, Chairman. With admirable promptness on the 14th of May he reported the bill with trifling amendments, and on June 10th it passed the Senate without active opposition. The following day the bill went to the House, and although strongly opposed by the Committee on Public Lands, passed on June 19th, and became a law with the signature of Abraham Lincoln, July 2, 1862.

PROVISIONS OF THE ACT OF 1862.

This Act gave each State, "for the purpose hereinafter mentioned," 30,000 acres of public land for each Senator and Representative in Congress, not including any mineral lands.

Section 2 provides the manner in which the lands should be set off and "said scrip to be sold by said States and the proceeds thereof applied to the uses and purposes prescribed in this Act, and *for no other purpose whatsoever.*"

Section 3 provides that the State shall pay out of the Treasury all expense of locating, sale and management of funds, "so that the entire proceeds of the sale of said lands shall be applied without any diminution whatsoever to the purposes hereinafter mentioned."

Section 4 provides for the investment of the funds derived from sale of the land scrip in stocks of the United States or of the State or some other safe stocks yielding not less than five (5) per centum upon the par value of said stocks, and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section fifth of this Act) and the interest of which shall be *inviolably appropriated* by each State which may take and claim the benefit of this Act, to the *endowment, support and maintenance* of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

Section 5 names the conditions "to which, as well as the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts."

CONDITIONS OF THE ACT OF 1862.

The first condition requires the State to replace any portion or interest thereon which by any action or contingency be diminished or lost,

and allows ten per centum (10) of the original fund to be used for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislature of said States.

The second forbids the use of any portion of the fund or interest in the "erection, preservation or repair of any building or buildings."

The third requires that the college be provided within five (5) years, or the fund turned over to the United States.

The fourth is "An annual report is to be made regarding the progress of each college, recording any improvements and experiments made, with the costs and results, and such other matters, including state, industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail, free by each, to all the other colleges which may be endowed under the provisions of this Act, and also one copy to the Secretary of the Interior."

The sixth excluded any State in a condition of rebellion from the benefits of the Act, and the seventh required the States to accept the conditions of the Act by legislative action within two years of its approval by the *President* to be entitled to its benefits.

Sections 6, 7 and 8 relate to the locating, price and sale of the lands.

AMENDMENTS TO ACT OF 1862.

An additional Act, amending section five of the Act of 1862, was passed July 23, 1866, extending the time allowed for acceptance of the benefits of said act three (3) years, and allowing five (5) years after the original five named in the Act for the establishment of a college. Also providing the method by which Territories becoming States might obtain the benefit of the Act.

This time of acceptance by the States was further extended by another amendment to two years from July 1st, 1872.

"With which to provide at least one college as described in the 4th section of an Act entitled 'An Act donating,' &c., approved July 2d, 1862."

These are the main facts of the United States statutes under which Agricultural Colleges or Agricultural departments in Classical colleges

have been organized and endowed in most if not all the States in the Union.

FIRST AGRICULTURAL COLLEGE.

In some States an effort, and more than effort, had been made in this same line. Several hundred farmers and planters, residents of the State of Maryland, personally contributed a large fund and established the first agricultural college in the United States in 1857 at the station and post-office by that name eight (8) miles out of the city of Washington, but political appointments, frequent changes in and often inefficient management, together with the apparent absence of any adequate idea of the true aims and purposes of such an institution, has often made it an object of suspicion and ridicule with the farmers themselves, and almost unknown outside the boundaries of its own State. However, "It's a long lane that has no turning," and within a year one of the best organizers in the country has been placed at the helm and with an efficient corps of helpers, if his efforts are seconded by the trustees, as they doubtless will be, the future promises results to the agriculture of Maryland well worth the long and tedious waiting.

The Michigan Agricultural College, founded about the same time, graduated its first class in 1861, and has ever had an enviable reputation as one of the best in the country. Both these colleges received the United States land grant endowment. The Massachusetts Agricultural College and Cornell University, Ithaca, N. Y., were two of the many that came into existence under the impulse of the Act of 1862. In Massachusetts one-third of the interest on the fund of \$219,000, derived from the sale of the land scrip allotted to that State, is paid by law to the Institute of Technology at Boston, thereby relieving the Agricultural College, which receives the other two-thirds, from any obligation under the Act of '62, to teach "the mechanic arts."

INDUSTRIAL TRAINING.

In many of the other colleges the department of Mechanic Arts is being more fully developed by providing industrial training under

skilled mechanics, who are qualified to teach the "science" as well as the "labor" in the departments which they supervise. Cornell University has long had such facilities for training the mind and eye, as well as the brain, and many of the western agricultural colleges are leading in this department of education. The University of Tennessee has just completed a brick building, provided with a twenty-five horse power boiler and engine of the most approved pattern—six forges with blowers so arranged as to take off all the smoke, iron-turning, drilling and planing machinery with all the improvements to date—in an adjoining room a dozen wood-turning lathes, saws, planer, etc.; a third apartment is provided with benches, vises, and hand wood-working tools, each student having five or six feet of bench room, a vise and kit of tools. There are also in the building rooms where free-hand and mechanical drawing are taught, and all the work done in the shops must first be designed and placed on paper, then constructed according to the plans.

That the idea of industrial training, barely outlined in the Land Grant Act of 1862 is receiving the support and encouragement of our best educators and public men, is evident to all. That part relating to the public schools of the inaugural address of the Hon. Henry R. Barker, Mayor of Providence, and the address of President Rowland Hazard, before the South County Agricultural Society at its annual fair last fall, is evidence of the interest in this subject in this State.

At this point it may be well to ask of the Act of 1862

HAS THE END JUSTIFIED THE MEANS?

Do Agricultural Colleges educate young men toward, or away from the farm? For we hear these questions now, although less frequently than ten years ago. The land grant amounted to 17,430,000 acres, which realized, as reported, about \$7,545,405. In some States the fund received large additions from private endowments, New York State being most fortunate in this respect in an increase from about \$600,000 to more than \$6,000,000.

Many of the States also have assisted the colleges liberally from time

to time. Is it fair, not twenty-seven years after the passage of the Act endowing these colleges, to ask if the *end* justified the means? Surely the "end" is not yet, and look at the results attained when the purpose and intention—the spirit as well as the letter of the Act of '62 has been faithfully carried out. Professor A. J. Cook, of the Michigan Agricultural College, in a recent article in the *Country Gentleman*, gives the manual labor feature of that institution large credit for sending "such a surprisingly large proportion of its graduates on to farms . . . and determining the future of the large number of our graduates that are now acting as professors in agricultural colleges and that are employed in the several experimental stations. Twenty-eight of our graduates are professors in Agricultural colleges or State Universities, twenty-three are members of experimental stations, and five are directors of such stations, while two are presidents of colleges."

The Massachusetts Agricultural College in 1887, sixteen years from the time the first class graduated, had a total of 268 graduates, of which number 260 were living. Eighty-four of them ($32\frac{1}{2}$ per cent.) were classed as engaged in "agricultural pursuits;" chemists and teachers, 17 each; engineers, 18; veterinary surgeons, 6; journalists, 8; clergymen, 4; physicians, 11; army, 1; lawyers, 9; dentists, 1; architects, 1; miscellaneous and unknown, 13; while 70 are assigned to business pursuits, several being in the fertilizer trade and intimately connected with agriculture. At the present time 28 of her graduates are connected with experiment stations in some official capacity.

Compare these results, if you please, with a like period of the early history of any of the classical colleges to which as a nation, we point with pride. Take Harvard, for instance; in 1643 there were four graduates; 1645, seven; 1646, four; 1652, one; 1654, one; 1655, two, and so on, whilst the class of 1685, consisting of fourteen, was the largest class graduated during the fifty years since "the college was begun," and twenty-two was the largest number of any class prior to 1719. Of the various investigations and experiments made at different times at the Massachusetts Agricultural College, that upon "the circulation of sap in plants and their expansive power during growth," led

the renowned Agassiz to say it alone was worth all the college had cost the Commonwealth.

EXPERIMENT STATION BILL INTRODUCED IN CONGRESS.

To increase the facilities for agricultural experiments and place the results before the people, a bill to establish agricultural experiment stations was introduced in the National House of Representatives by Hon. C. C. Carpenter, of Iowa, in the 47th Congress, 1881—1883. Nothing was done, however, and the Hon. A. J. Holmes, also of Iowa, introduced the same bill in the 48th Congress; but, fully occupied with other matters, little was done till Dr. G. W. Atherton, following out the original idea, rewrote and practically made a new bill of it. At this time not even the sub-committee of the Committee on Agriculture knew of its existence. An official hearing was given, the Atherton bill was adopted as a substitute for the original and favorably reported, but all efforts in the 48th Congress were unsuccessful. Meantime Dr. Cooke, of New Jersey, and Dr. Atherton sent a circular letter to all the institutions in the country likely to be interested in the bill.

PASSAGE OF THE HATCH ACT.

Before the 49th Congress met a convention of agricultural college presidents was held in Washington. They approved the measure and appointed Dr. Atherton, of Pennsylvania, President Willetts, of Michigan, and General Lee, of Mississippi, all presidents of agricultural colleges, a legislative committee to look after the bill.

Soon after the opening of the 49th Congress a hearing was had before the Committee on Agriculture. The chairman, Hon. W. H. Hatch, reported the old bill with very slight changes, and the interest of its friends, ably seconded by the agricultural press, brought the bill to a successful issue. The bill provided that the first payment should be made on October 1st, 1887, but Congress failing to make the appropriation, payments were not made till some three months later. By the provisions of this Act each State accepting the conditions receives the sum of \$15,000 annually, so long as the appropriation is made by Congress, for an experimental station.

STATE LEGISLATION.

At this stage let us glance at the legislation in this State supplemental to these Congressional Acts.

The General Assembly of 1863 passed resolutions authorizing the Governor on the part of the State to accept and receive the land-scrip, 120,000 acres, from the United States authorities "upon the terms and conditions of said Act contained and set forth; and that the faith of the State be and is hereby pledged to the United States that upon receipt of the scrip provided to be issued under the said Act of Congress it will faithfully apply the proceeds thereof to the objects and in the manner prescribed by this Act."

STATE AND BROWN UNIVERSITY.

The Governor was also authorized to transfer to Brown University all the land-scrip this State received, that institution agreeing to assume all responsibilities and faithfully discharge all obligations imposed upon and assumed by the State in the Land Grant Act.

Section 6 of the agreement on the part of the University with the State was "To educate scholars each at the rate of \$100 per annum to the extent of the entire annual income from said proceeds, subject to the proviso as aforesaid. The Governor and Secretary of State to have the right on or before Commencement day of each year and in connection with the President of the University to nominate candidates for the vacancies occurring in said college or department."

STATE BENEFICIARIES, HOW NOMINATED.

A resolution was also passed constituting the "Senators and Representatives in the General Assembly for the time being a Board of Commissioners whose duty it shall be during the January Session of each year to present to the Governor and Secretary of State the names of worthy young men from the several towns to be educated as State beneficiaries in Brown University, according to the Act of Congress, etc. And the said Commissioners are hereby instructed after one candidate has been presented from each town in the State (the order of the towns

to be determined by lot) to select the candidates as far as may be from the several towns in the ratio of their representation in the House of Representatives, and from that class of persons who otherwise would not have the means of providing themselves with the like benefits; and that the Governor and Secretary of State be and they hereby are instructed to select candidates from the names presented in such manner as that whenever for any reason any town shall not have received its just quota of those admitted to said University, such town shall have in the nomination of subsequent candidates priority over those towns which have received their full quota."

REPORT OF THE BOARD OF EDUCATION.

The Board of Education in 1869, in a report to the General Assembly in relation to the agricultural department of Brown University, "Are of the opinion that the intentions of Congress have not been carried out in good faith by either Rhode Island or Brown University." In order that the evident intentions of Congress may be faithfully carried out the committee offered a resolution, the chief feature of which was the appropriation by the State of \$10,000, "for the purpose and maintenance in connection with the agricultural department of Brown University of an experimental garden or small farm, together with such buildings and apparatus as may be necessary," provided a like sum shall be raised by private subscription before October 1, 1869. This resolution never became a law.

COMMITTEE TO INVESTIGATE.

In January, 1872, in the report of the committee appointed in 1871 to investigate the matter of the employment and use by Brown University of the land-scrip given by the United States, the committee state that in 1870 it was brought to the notice of several members of the General Assembly that the income of the land grant fund was likely to be applied to mere classical college education.

Upon investigation the committee find that the University has what it calls in its catalogue an agricultural and scientific department; that it

is evident that this is in accordance with the agreement, but equally evident that no college has been practically established, and that omission is contrary to the spirit and letter of the Act of Congress. The committee recommend that the University be requested to organize the college in question by appointing some capable and able individual who shall be its chief, etc., and "Finally, your committee are convinced that no classical or other instruction may lawfully be imparted at the cost of this foundation, unless the same be conditioned upon the faithful pursuit of the Agricultural and Mechanical Course, etc."

METHODS OF APPOINTING BENEFICIARIES CHANGED.

The law governing the appointment of the beneficiaries was found to be too strict in detail, there being a large number of applicants from the cities and larger towns, so in June, 1873, a more liberal method of appointment was substituted and the old law repealed. The new law provides that the candidates shall be selected in such manner that the people of the several *counties* shall participate in the benefits of the national donation as nearly as may be practicable in proportion to their respective population. Also that the young men "shall not have means of procuring an education for themselves."

In January, 1884, a resolution was passed appropriating \$75 instead of \$100 per annum for the education of each beneficiary under the Land Grant Act. All this legislation shows a continual feeling on the part of citizens of the State that the spirit of the law, if not the letter, was being broken in the use of the income of this fund, designed especially to foster agricultural and mechanical education. That instead of those branches being the *leading object* without excluding other scientific and classical studies, as required in the Act, classical and scientific studies have been the leading object and agriculture as nearly excluded as possible.

This conclusion is but confirmed by an examination of

THE ANNUAL CATALOGUE OF THE UNIVERSITY,

where the only mention of *required studies* under the State scholarships is *one hour per week*, in the *first half* of *Senior year*, devoted to Agri-

cultural Zoölogy. Under the departments of Practical Science we find Agriculture placed as the sixth, and the course of instruction includes the courses in the preparatory branches—Chemistry and Physics, Physiology, Botany, Zoölogy and Comparative Anatomy—and the one hour per week mentioned above.

The last three branches named are elective, according to the catalogue, and therefore may or may not be taken by the State beneficiary.

NUMBER OF STATE BENEFICIARIES.

According to the records of the proceedings of the Grand Committee of the General Assembly, there have been 240 persons named as beneficiaries, of which number 115 are from Providence, just a trifle less than 48 per cent. of the entire number, Newport 14, Pawtucket 13, and Woonsocket 5, a total for the cities of 147, leaving 93 for the 32 towns in the State. Bristol has sent the largest number, 11, and South Kingstown the next largest, 8, while Jamestown, Charlestown, West Greenwich and Coventry have not been represented at all. The largest number appointed in any one year was 31, in 1887. Seventeen of these were from Providence. All the young men nominated by the General Assembly have not been appointed by the committee, consisting of the Governor, Secretary of State and President of Brown University. Just how many of the 240 have practically received the aid of the fund we are unable to say; we have obtained authentic records only for the past four years.

A young man once appointed usually has the benefit of the scholarship through the course of four years.

18

STATE AGRICULTURAL SCHOOL.

19

240

TABLE OF BENEFICIARIES APPOINTED TO BROWN UNIVERSITY 1882-1888.

TOWNS.	COLLEGE YEAR 1885-86.				1886.	1887.	1888.	TOTAL.
	Seniors.	Juniors.	Sophomores.	Freshmen.	Freshmen.	Freshmen.	Freshmen.	
Newport.....							1	1
Providence.....	5	1	6	8	6	5	8	39
Portsmouth.....								
Warwick.....				1				1
Westerly.....								
New Shoreham.....								
North Kingstown.....						1		1
East Greenwich.....								
Jamestown.....								
Smithfield.....								
Scituate.....								
Glocester.....								
Charlestown.....								
West Greenwich.....								
Coventry.....								
Exeter.....								
Middletown.....	1							1
Bristol.....			1		1			2
Tiverton.....								
Little Compton.....			1					1
Warren.....								
Cumberland.....	1	1	1	1			1	5
Richmond.....								
Cranston.....					1			1
Hopkinton.....								
Johnston.....		1						1
North Providence.....								
Barrington.....			1					1
Foster.....								
Burrillville.....								
East Providence.....								
Pawtucket.....	1	1	1		3	1		7
Woonsocket.....			1				1	2
North Smithfield.....								
Lincoln.....								
South Kingstown.....								
TOTAL.....	8	4	12	10	11	7	11	63

In the college year of 1885 and 1886, 8 Seniors, 4 Juniors, 12 Sophomores and 10 Freshmen held State scholarships—a total of 34. To the class entering in 1886 there were 11 appointed, in 1887 there were 7, in 1888, 11, a total of 63 young men who entered college in the years 1882 to 1888. Of this number 39, or 62 per cent., were from Providence, Pawtucket 7, Woonsocket 2 and Newport 1. Total from the cities 49, or over 77 per cent. of the whole number.

We have no means of knowing the profession or kind of business

the State beneficiaries have entered on graduating, but are unable to find *one* who has applied himself to agriculture.

A JOINT SPECIAL COMMITTEE

was appointed January 2d, 1887, to "investigate and report what action is necessary and best to be taken by this State that the agricultural interests of the State may derive the greatest benefit in carrying out the provisions of an Act passed by the 49th Congress, entitled an Act to establish agricultural experiment stations," also instructed "to investigate and report what disposition is now made of the income derived from the Land Grant Fund received by this State from the United States."

The Committee held a number of public hearings during the winter of 1887-8 which were well attended by representative farmers from different parts of the State, and in accordance with the popular opinion that to connect an experimental station with Brown University was inadvisable, the committee reported a bill establishing a

STATE AGRICULTURAL SCHOOL

on an independent basis, which was passed March 23, 1888. A resolution had already been passed on March 20th, appointing a Joint Special Committee to select a site.

This Committee, after inspecting locations in several different towns, selected the "Tefft Farm," better known as the

"OLIVER WATSON FARM"

in the town of South Kingstown. The town gave \$2,000, by vote, toward the purchase of the farm, citizens and friends contributed \$2,000 more, and the State paid \$1,000. At the adjourned May Session, June 13th, as provided in the Act establishing a State Agricultural School, His Excellency, Governor Taft, appointed a

BOARD OF MANAGERS

consisting of five members. Mr. J. A. Budlong, the appointee from

Providence county, declining to serve, the present incumbent was appointed July 13, 1888, and on the following day, at the call of His Excellency for a meeting in his office at the State House, members of the Board of Managers and the Joint Special Committee informally discussed the Act creating the school and plans for the Experiment Station. A similar meeting was held a week later. On July 30, 1888, all the members of the Board, excepting one who was out of the State, met at the farm in South Kingstown pursuant to a call issued by the Secretary of State. The Chairman of the Joint Special Committee accompanied the Board on this tour of inspection, and citizens of the town kindly furnished conveyance and entertainment. At this meeting the

BOARD ORGANIZED

by the choice of Charles O. Flagg, of Cumberland, President, and Melville Bull, of Middletown, Secretary and Treasurer.

Section 4 of the Act establishing the school provides that "Any sum which shall be received by the State by virtue of any Act of Congress for the promotion of Agriculture shall be appropriated to the use of said Board for the purpose for which said sum was appropriated."

As the time had already expired in which the first year's appropriation under the Hatch Act could be expended, it reverted to the United States, but steps were immediately taken on the part of His Excellency, Governor Taft, and the Board, to make out and file with the proper authorities at Washington the necessary papers to secure to this State the \$15,000 annually paid under the Hatch Act. The \$5,000 appropriated in the Act for the establishment of the school by the State, was not available through a technicality, and therefore no decided steps have been taken toward organizing a school. At the meeting on July 30 the Board voted to visit Storr's School, at Mansfield, and the Experiment Station, in Amherst, Mass., hoping to get further information regarding the practical working of those institutions. But two members of the Board were able to go on August 16 and 17. They very much regretted the absence of their co-workers, as the trip was very instructive.

At the call of the President, a meeting was held at the State Fair Grounds September 27, where Hon. Charles H. Peckham, Chairman of the Joint Special Committee, formally announced to the Board the signing and receipt of the deed of the farm, so long delayed by the serious illness and death of Mr. Tefft.

On October 13, the Treasurer received the

FIRST QUARTERLY INSTALLMENT

of the Hatch Fund, \$3,750. On the 25th, Dr. Goessman of the Massachusetts Agricultural Experiment Station met the Board by invitation at the farm to inspect and advise with relation to building, laying out experimental plats, etc.

November 3d, a meeting was held at the State House, where it was voted that the funds of the Board be deposited with the Rhode Island Hospital Trust Company. That the Treasurer give bonds satisfactory to the Board for \$3,750. (A bond for \$4,000, satisfactory to the Board, was filed later with the President and deposited by him with the State Treasurer.) That the President secure a survey and plot of the farm, also photographs of the farm and buildings for future reference. Charles O. Flagg was appointed Director *pro tem*.

Three meetings were held in November and another in December. Mr. E. A. Ellsworth of Holyoke, a civil engineer with some experience in the construction of laboratories, was employed to furnish designs and specifications for a laboratory for the Experiment Station. Rev. Edgar F. Clark, connected the past summer with the United States Geological Survey, has been employed to make a short geological examination of the rocks and soils of the farm, a report of which will be published on the bulletins of the station. The survey of the farm has been entrusted to Charles F. Chase, C. E., and the work is nearly completed.

By vote of the Board the Director *pro tem*. attended the second annual meeting of the American Association of Agricultural Colleges and Experiment Stations at Knoxville, Tenn., January 1-4, 1889. Delegates were present from 31 States, including all east of the Missis-

sippi river, excepting Florida. The work of the experiment stations, methods pursued, and advantages to the public, with many other questions of interest were ably discussed, furnishing much valuable information to station workers.

THE FARM

at South Kingstown is situated on the westerly side of Kingston Hill, about one-half mile from the post office and one and seven-tenths miles from the depot, although the west end of the farm comes quite near to the railroad. It consists of about 140 acres of land, that on the hill being moist, stony land, with impervious subsoil, while the plain is a sandy loam soil, free from stone, with a gravelly subsoil at the depth of three to four feet, and permanent water at sixteen to twenty feet from the surface.

THE BUILDINGS

are a two-story house with old fashioned chimney and ell, size $36\frac{1}{2}$ feet by $28\frac{1}{2}$ feet—ell 22 feet by 20 feet. The barn was built about seventeen years ago and is $36\frac{1}{2}$ feet by $32\frac{1}{2}$ feet on the ground. There are some other small buildings, wagon-sheds, corn-house, poultry house, etc. On the plain is a barn that was in very poor repair, one end being entirely out. It was originally 20x30 feet, with 12-foot posts. This has been raised a little, new-silled and ten feet in length added to the open end. Several cords of good fertilizing material was taken out of the old floorway and stables. With a new roof, new doors, etc., it makes a good barn for storing hay, all the space being utilized for that purpose.

FARM WORK.

Mr. H. F. Adams has been employed as working foreman, lives in the house and boards the farm help at present engaged in clearing brush from a portion of the pastures. The rail fences which subdivided the plain land have been taken down, making one large field of three smaller ones. Seven and one-half acres of land have been plowed

at the west end of the plain, being a part of the old sheep-pasture and badly overgrown with moss. Quite a quantity of rocks have been taken out of the field just northeast of the barn. The avenue has been cleared from brush and the grade stakes set out for constructing a drive way. It is proposed to remove the surface soil for fifteen feet in width and use the small stone of the cross walls in making a road-bed, and with proper attention to drainage we hope to have a dry, firm driveway.

A good pair of horses six years old and weighing 2,600 lbs. have been purchased, also a cow. Some farming tools and wagons have been provided, and others will be bought later.

WANTS OF THE EXPERIMENT STATION.

To fully equip the Experiment Station requires the construction of a laboratory and barn, plans for the former of which are now completed. The design calls for a stone building constructed from the material on the farm, the main building $45\frac{1}{2} \times 19\frac{1}{2}$ feet and two stories high, with two wings each $32\frac{1}{2} \times 19\frac{1}{2}$ feet and one story high, with basement under the whole. The main building will be used for office, collection rooms, etc. The wings are provided with flues, retorts, etc., for chemical work. To construct this building in a substantial manner will require nearly if not quite \$10,000. Designs for a barn are not yet made.

By the condition of the Hatch Act, \$3,000 of the first annual appropriation paid to any State by the United States may be used for building purposes, and this sum the Board deem sufficient to build the necessary additions to the existing barn and repair the sheds, etc., including the work already done to the barn on the plain.

Therefore to place the Experiment Station on a substantial basis the Board of Managers would respectfully ask the General Assembly to appropriate the sum of \$10,000 with which to construct a laboratory and otherwise provide for the efficient conduct of the Rhode Island State Agricultural Experiment Station. Once established it is expected the annual grant from Congress will provide for the wants of the Station.

4

THE STATE AGRICULTURAL SCHOOL

to be organized when the appropriation made for the purpose becomes available will require for its development a school building to accommodate from thirty to fifty students with facilities for boarding, laundry, etc., also recitation rooms and reading rooms.

This building will certainly be needed by another year. It is also hoped that the State or friends of the institution will provide the facilities for

INDUSTRIAL TRAINING

in the mechanic arts, which would require an appropriate building, boiler, engine and machinery. A knowledge of wood and iron working is valuable to the farmer, enabling him oftentimes to save both time and money, and such a department would afford valuable training during the winter months when manual work on the farm is difficult to provide.

Finally, the Board would respectfully urge that in their opinion the agricultural and mechanical interests of the State will best be promoted by appropriating the income from the Fund obtained from the sale of the Agricultural College Land Scrip to the Rhode Island State Agricultural School, believing that the University having over sixty scholarships of \$1,000 each and upward endowed by private benefactors is in no sense dependent upon the income from the Land Grant Fund for any measure of its prosperity, while to the infant Agricultural School it will prove of great assistance.

To this end the Board would recommend that your Honorable Body take such action as shall prevent any further appointment of State beneficiaries to Brown University, and shall, as soon as those now receiving the aid of the income from the fund have graduated or ceased to attend college, cause the Land Grant Fund to be an endowment for the Rhode Island State Agricultural School and the income thereon available for its support. That there is a

DEMAND FOR SUCH A SCHOOL

is shown by the fact that last September, nearly *twice* as many young men applied for admission to Storrs' School at Mansfield, Conn., as could be accommodated.

There is also a demand for men as teachers and investigators in special lines related to agriculture—such men as these schools and agricultural colleges educate.

The recent statement of the chemist of the Bureau of Agriculture that in the event of the manufacture of sorghum sugar becoming commercially practicable, more people will be immediately needed for the scientific work connected therewith than the whole number who are now competent and available is evidence that the field of the natural sciences is not over crowded with workers.

This day is perhaps not far distant, for the average per cent. of sugar in beets in the early history of the beet sugar industry was about six per cent. and by judicious selection of seed grown from beets known to contain a higher per cent. of sugar the average per cent. has been raised to a very profitable point. The prospect is encouraging that these same facts may be realized in the case of sorghum industry.

The Board are unanimously of the opinion that the hearty support of the State in organizing and equipping the Rhode Island Agricultural School will be appreciated by the citizens of the State, result in great good to the agricultural and mechanical industries of the State and thus to the benefit of all.

Respectfully submitted,

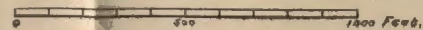
CHAS. O. FLAGG,
CHAS. J. GREENE,
MELVILLE BULL,
C. A. SHIPPEE,
CHANDLER H. COGGESHALL.

MAP OF THE
RHODE ISLAND STATE AGRICULTURAL SCHOOL
AND
EXPERIMENT STATION FARM.

KINGSTON,

1889.

Charles F. Chase, Engineer, Providence.



Note.

† Graves.

○ Springs.

--- Cart path.

C. Cultivated land 80 $\frac{1}{2}$ acres.

P. Pasture " 42 $\frac{1}{2}$ "

Wood " 10 $\frac{1}{2}$ "

Orchard 1 $\frac{1}{2}$ "

House and barn yard $\frac{1}{8}$ "

Entrance avenue 3 $\frac{1}{2}$ "

Total area 139.65 "

The Contours are referred to Mean Sea Level.

